

REMARKS

Applicant has studied the Office Action dated June 14, 2007. Claims 1-20 are pending. Claims 1, 7, 8 and 11 are independent claims.

It is submitted that the application is in condition for allowance. Reconsideration and reexamination are respectfully requested.

§ 103 Rejections

Claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka et al. ("Tanaka" U.S. Pat. No. 5,912,869) in view of Cho (U.S. Pat. No. 5,375,249) and in further in view of Ko (U.S. Pat. No. 5,748,119). This rejection is respectfully traversed.

It is respectfully noted that the Federal Circuit has provided that an Examiner must establish a case of prima facie obviousness. Otherwise the rejection is incorrect and must be overturned. As the court recently stated in In re Rijkaert, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993):

It is further respectfully noted that "In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. 'A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.' If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned." (citations omitted.)

With regard to independent claims 1, 7, 8 and 11, it is respectfully noted that the Examiner, at pages 3, 5-6, and 7-10 of the Office Action, indicates that "Tanaka ... does not specifically disclose adding at least one merging bit followed by the modulation-coded unit block" or "recording byte-unit information indicating the number of bytes comprising each unit block together with each modulation-coded block to which the at least one merging bit was added" and asserts that Cho and Ko disclose these limitations. Applicant respectfully disagrees with the Examiner's interpretation of Ko.

It is respectfully noted that the Examiner specifically cites col. 4, ll. 25-30 of Ko as disclosing "encoding (recording) byte-unit information using identifying bits." However, it is further respectfully noted that the specific disclosure at col. 4, ll. 25-30 of Ko is that "[i]f the runlength of the combination of two code words Cp and Cn, including the merging bit, is fourteen or more, the merging bit is set to 1 and the twelfth bit of Cp and the third bit of Cn are converted to 1s" and that "the twelfth bit of Cp and the third bit of Cn are referred to as identifying bits."

It is respectfully submitted that the cited disclosure at col. 4, ll. 25-30 of Ko is not analogous to recording byte-unit information recited in independent claims 1, 7, 8 and 11 as the Examiner asserts, but rather merely the setting of a merging bit and two other bits based on "the runlength." It is further respectfully submitted that setting the "merging bit" and the "twelfth bit of Cp" and the "third bit of Cn" are not disclosed in Ko as indicative of the "runlength" but rather disclosed only as based upon the runlength, given that the setting of the bits conveys at most only that "the runlength ... is fourteen or more" and further that any indication of the "runlength" is disclosed in Ko with respect to the number of **bits**, while the byte-unit information recited in claims 1, 7, 8, and 11 indicate the number of bytes comprising each unit block together with each modulation-coded unit block to which the at least one merging bit was added.

It is respectfully noted that the Examiner specifically cites col. 9, ll. 59-57 of Ko as disclosing that the bits disclosed as "encoded" at col. 4, ll. 25-30 "indicate the runlength (number of bits) converted (modulated) in the modulated-coded block to which the merging bit was added." It is respectfully assumed that the Examiner meant to cite col. 9, ll. 49-57 of Ko and it is further respectfully noted that the specific disclosure at col. 9, ll. 49-57 of Ko is "the twelfth bit of the Cp register 240 and the third bit of the Cn register 220, and the merging bit serve to **determine which channel bits are converted.**" (emphasis added).

It is respectfully submitted that the disclosure at col. 9, ll. 59-57 of Ko is not analogous indicating the number of bytes comprising each unit block together with each modulation-coded unit block to which the at least one merging bit was added, as recited in claims 1, 7, 8 and 11, but rather only that the "twelfth bit of the Cp" and the "third bit of the Cn" or the disclosed "identifying bits" along with "the merging bit" determine "which

channel bits are converted.” The Examiner’s attention is respectfully directed to col. 6, ll. 13-17 of Ko, which discloses “when the merging bit is 1, the decoder determines which bit to convert on the basis of the twelfth bit of Cp and the third bit of Cn ... explains why the twelfth bit of Cp and the third bit of Cn are referred to as identifying bits” and it is further respectfully submitted that this disclosure provides further support for the Applicant’s interpretation of the disclosure in Ko, as does the similar disclosure at col. 10, ll. 1-16.

With regard to independent claim 8, it is respectfully noted that the Examiner, at page 7 of the Office Action, indicates that “Tanaka ... does not specifically disclose ... decoding each unit block using the corresponding byte-unit information” and cites col. 10, ll. 1-22 of Ko as disclosing “[t]he identifying bits are then used to decode EFM modulated block data.” Applicant respectfully disagrees with the Examiner’s interpretation of the cited portion of Ko.

It is respectfully noted that the specific disclosure at col. 10, ll. 17-20 of Ko is “[t]he output of the Cp register 240, which is converted depending on the states of the twelfth bit of the Cp register 240 and the third bit of the Cn register 200, is decoded to the original data through a conventional EFM decoding table 250.” It is respectfully submitted that the disclosure is not that the “identifying bits are then used to decode EFM modulated block data,” but rather that the “identifying bits” determine how the “output of the Cp register 240” is “converted” and that the decoding is according to “a conventional EFM decoding table 250” with no disclosure that the “identifying bits” are utilized for the decoding.

It is respectfully noted that the specific recitation in independent claim 8 is decoding each unit block using the corresponding recorded byte-unit information. It is further respectfully noted that the specific disclosure in Ko with regard to decoding is that the “merge bit” is “discarded” or “removed” prior to the decoding. See col. 2, ll. 49-51 and col. 6, ll. 62-64.

It is respectfully submitted that Ko fails to teach or suggest recording byte-unit information indicating the number of bytes comprising each unit block together with each modulation-coded unit block to which the at least one merging bit was added as recited in independent claims 1, 7, 8 and 11 or decoding each unit block using the

corresponding recorded byte-unit information, as recited in independent claim 8.

Therefore it is respectfully asserted that independent claims 1, 7, 8 and 11 are allowable over the cited combination of references.

With regard to claims 3, 13, 16 and 17, it is respectfully noted that the Examiner, at pages 4, 10 and 11 of the Office Action, asserts that Cho discloses “adding three merging bits” at col. 7, ll. 11-16 and that it “would have been obvious to one skilled in the art to include this feature.” Applicant respectfully disagrees with the Examiner's assertion.

It is well-settled law that to support a finding of obviousness, a reference must provide some motivation, working without the benefit of the applicant's specification, to make the necessary changes in the device disclosed in the reference. The mere fact that a worker in the art could modify the reference to meet the terms of the claims is not, by itself, sufficient. The mere fact that a reference may be modified in the direction of the claimed invention does not make the modification obvious unless the reference expressly or impliedly teaches or suggests the desirability of the modification. In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984); Ex parte Clapp, 227 USPQ 972, 973 (Bd. App. 1985); Ex parte Chicago Rawhide Mfg. Co., 223 USPQ 351, 353 (Bd. App. 1984).

It is respectfully noted that the Examiner has asserted the combination of Tanaka, Cho and Ko with regard to, respectively, independent claims 1, 7, 8 and 11 from which claims 3, 13, 16 and 17, respectively, depend. It is, therefore, further respectfully submitted that the use of Cho to motivate “one skilled in the art” to modify the Tanaka reference by “adding three merging bits” must also be in keeping with the disclosure in Ko.

It is respectfully noted that Ko specifically indicates that “three merging bits” is a disadvantage of the prior art. See Ko at col. 1, line 61 to col. 2, line 5. It is further respectfully noted that Ko is specifically directed to “methods which use an EFM code with a reduced number of merging bits.” See Ko at col. 2, ll. 9-14. Moreover, it is respectfully noted that all embodiments disclosed in Ko use less than three merging bits. See Ko at col. 3, line 34 to col. 4, line 47, col. 5, ll. 25-34, col. 5, line 62 to col. 6, line 61, col. 7, ll. 8-10 and col. 8, ll. 32-46.

It is respectfully submitted that Ko is directed to "methods which use an EFM code with a reduced number of merging bits" that is less than the "three merging bits" that provide a disadvantage in the prior art and, therefore, that Ko "teaches away" from "adding three merging bits." It is further respectfully submitted that "one skilled in the art" would not be modified to modify the combination of Tanaka and Ko such that three merging bits are added, as recited in claims 3, 16 and 17. It is, therefore, respectfully asserted that Cho is not a valid reference with regard to claims 3, 16 and 17 if Ko is used to teach the modification of Tanaka with respect to independent claims 1, 7, 8, and 11, and it is respectfully requested that the rejection be withdrawn.

It is respectfully asserted that claims 3, 16 and 17 are allowable over the cited combination of references both by virtue of the limitations recited therein as well as by virtue of their dependence from an allowable independent claim. It is further respectfully asserted that claims 2, 4-6, 9, 10, 12-15, and 18-20 are allowable over the cited combination of references by virtue of their dependence from an allowable independent claim.

CONCLUSION


In light of the above remarks, Applicant submits that claims 1-20 of the present application are in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

LEE, HONG, DEGERMAN, KANG & SCHMADEKA

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